

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. 38

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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Ex parte ELMER J. HOLLSTEIN,  
JAMES T. WEI,  
and CHAO Y. HSU

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Appeal No. 96-0394  
Application 07/989,729<sup>1</sup>

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ON BRIEF

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Before KIMLIN, PAK and ELLIS, Administrative Patent Judges.

PAK, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the refusal of the examiner to allow claims 9 and 10, which are all of the claims remaining in the application.

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<sup>1</sup> Application for patent filed December 10, 1992. According to appellants, this application is a continuation of Application 07/686,713 filed April 17, 1991, now abandoned, which is a continuation-in-part of Application 07/565,588 filed August 9, 1990, now abandoned.

Appeal No. 96-0394  
Application 07/989,729

Claim 9 is representative of the subject matter on appeal and reads as follows:

9. Solid superacid catalyst having acid strength  $H_0$  less than -18 and comprising Group VII metal or compounds thereof.

The references of record relied upon by the examiner are:

Tauster et al. (Tauster)	4,402,869	Sept. 6, 1983
Jones et al. (Jones)	4,650,781	Mar. 17, 1987

Claims 9 and 10 stand rejected under 35 U.S.C. § 103 as unpatentable over either the Jones or the Tauster disclosure. We reverse.

The examiner acknowledges that neither Jones nor Tauster mentions forming a "superacid" catalyst having "an acidity factor  $H_0 < -18$ ." See Answer, page 4. However, the examiner states (see Answer, page 4) that:

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains, to follow the teachings of Jones/Tauster and obtain the materials by the same process of impregnation and calcination and call the material "superacid" and express an intrinsic chemical property - the acidity factor  $H_0 < -18$ .

Appeal No. 96-0394  
Application 07/989,729

It appears that the examiner's position is that the catalysts described by either Jones or Tauster inherently have the claimed superacidic property because they are made by the "same process of impregnation and calcination".

To establish inherency under § 102 or § 103, the examiner has the initial burden of supplying evidence and/or scientific reasoning to support a conclusion that the prior art catalysts necessarily possess an acidity factor  $H_0 < -18$ . Cf. In re King, 801 F.2d 1324, 1326, 231 USPQ 136, 138 (Fed. Cir. 1986); In re Oelrich, 666 F.2d 578, 581, 212 USPQ 323, 326 (CCPA 1981); In re Best, 562 F.2d 1252, 1254, 195 USPQ 430, 432-33 (CCPA 1977); Ex parte Skinner, 2 USPQ2d 1788, 1788-89 (Bd. Pat. App. & Int. 1986). No convincing evidence or scientific reasoning, however, is offered by the examiner. The examiner's argument that Jones or Tauster discloses the same process of impregnation and calcination is erroneous. Neither Jones nor Tauster discloses soaking a calcined catalyst with 1.0 normal sulfuric acid for a prolonged period. Compare the disclosures of Jones and Tauster with example 1 at page 18 of the specification.

Appeal No. 96-0394  
Application 07/989,729

To the extent that the examiner may have relied on obviousness, rather than inherency, we find no suggestion or motivation in either reference to arrive at the claimed subject matter. Neither Jones nor Tauster recognizes the importance of obtaining the claimed acidic values.

Upon return of this application, the examiner should consider applicability of a § 112 rejection based on non-enablement. Appellants state at page 22 of the specification that the catalysts produced according to examples 1 through 9 are "believed" to have an acid value  $H_o$  of -18. This belief does not appear to be based on any art-accepted test or measurement. We note that the specification discloses soaking the calcined catalysts in 1.0 normal sulfuric acid, yet according to the appellants the resultant product has an acid value which is six orders of magnitude more acidic than concentrated sulfuric acid. See Brief, page 6, in conjunction with the specification, example 1.

Upon return of this application, the examiner should also determine whether all the relevant prior art has been considered. We direct attention to Japanese Patent J01245853. According to

Appeal No. 96-0394  
Application 07/989,729

appellants at pages 7 and 8 of the specification, this patent describes a catalyst having VIIa (e.g., manganese) metals or its compounds, and  $\text{SO}_4$  or  $\text{SO}_4^{-2}$  containing precursors.

REVERSED

EDWARD C. KIMLIN	)	
Administrative Patent Judge	)	
	)	
	)	
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	)	
CHUNG K. PAK	)	BOARD OF PATENT
Administrative Patent Judge	)	APPEALS
	)	AND
	)	INTERFERENCES
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	)	
JOAN ELLIS	)	
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Appeal No. 96-0394  
Application 07/989,729

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